THE AMERICAN ARCHITECT

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SOUTHERN YELLOW PINE FOR STRUCTURAL PURPOSES

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DURING the decade from 1906 to 1915, inclusive, the reported lumber cut of southern yellow pine has amounted to the enormous total of 138,000,000,000 board feet. The maximum production was reached in the year 1909 when the returns showed over 16,250,000,000. The production for the past four years has remained fairly constant, averaging somewhat above 14,500,000,000. This is about 40 per cent of the total of all lumber cut in the United States and about half of the softwood production. It is more than three times the cut of Douglas fir, which is the nearest competitor to southern yellow pine.

Southern yellow pine was for many years better and more favorably known in foreign countries than in the principal markets of this country. For the last twenty years, however, it has furnished the larger part of the timber used for building purposes in America, while the demand from all portions of the world makes it our leading export wood.

The extent of the southern pineries is so great that only a rough approximation can be made of the amount of standing timber. In 1909 the U. S. Bureau of Corporations estimated that the total stand of privately owned southern yellow pine in Alabama, Arkansas, Florida, Louisiana, Mississippi, Texas and portions of Georgia, Missouri, the Carolinas and Virginia was over 384,000,000,000 board feet. If one includes the timber publicly owned and that outside the limits of the estimate, makes some allowance for growth since that investigation, and deducts the lumber cut, the result indicates a total stand of some 325,000,000,000 feet. Assuming this figure to be approximately correct, it follows that the present rate of consumption will virtually exhaust the supply in less than 25 years. In reality, southern pine will be with

LOG SECTION, SOUTHERN YELLOW PINE

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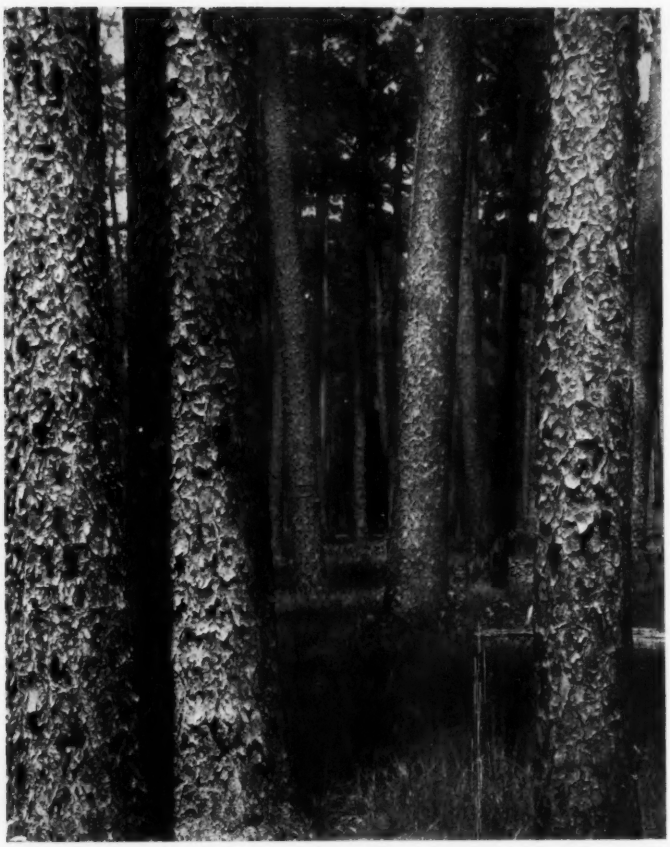


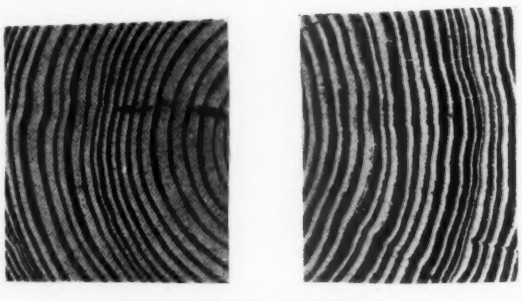
STANDING SOUTHERN YELLOW PINE

us much longer than that, if not indefinitely, for with waning supply will come closer utilization and conservation, while the second growth will increase in importance.

The name southern yellow pine is a collective term and comprises several species of pines growing in the southern states from Virginia to Texas. The three most important are the longleaf (*Pinus palustris*), the shortleaf (*Pinus echinata*), and the loblolly (*Pinus taeda*). Associated with these in comparatively small amounts are certain others of which Cuban or slash pine (*Pinus caribaea*) and pond pine (*Pinus serotina*) are of chief value. From a botanical standpoint the various species of trees are distinct but for commercial purposes the woods are placed in one group. Exhaustive tests have demonstrated that such grouping is entirely legitimate if the material is graded according to quality.

Chief among the southern pines is the longleaf. It grows for the most part in great stands from which almost all other tree growth is excluded and forms a belt from 125 to 200 miles wide along the Atlantic and Gulf coasts from southern Virginia to eastern Texas. The tree is variously known, but its most common names are longleaf pine, Georgia pine, and yellow pine. In the export trade it is commonly known as pitch pine. The mature tree is of excellent timber form, tall, straight and clear. The wood is the heaviest, hardest and most resinous of the group. About 55 per cent of the present stand of southern pine is of this species, but the proportion will steadily decrease because of the comparatively small amount of second growth.

Shortleaf pine is the name commonly applied in trade to both the true shortleaf and loblolly in distinction to longleaf. The ranges of the two trees overlap in many places and for the most part lie to the north of the main longleaf pine belt. The true shortleaf is a tree of the plains and foothills. On extensive areas from Maryland southward and westward to the Mississippi it occurs as second



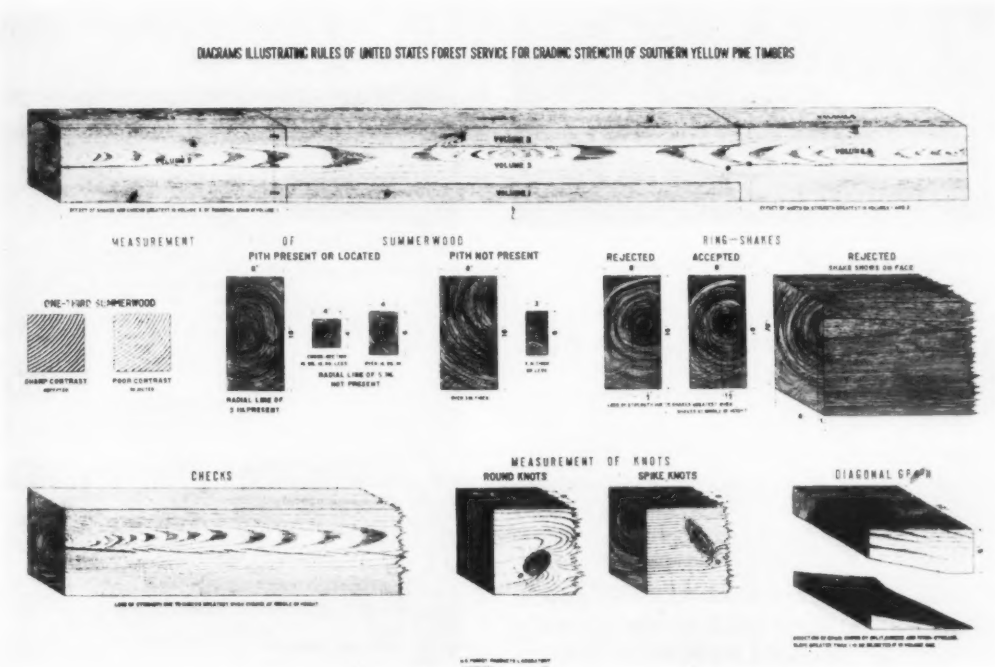
SOUTHERN YELLOW PINE

Same rate of growth, but one contains a much larger proportion of dense summer wood and is consequently heavier and stronger than the other.

growth, both in pure stands and mixed with hardwoods, and in the Gulf states and the central Mississippi Basin it forms a large proportion of the remaining virgin southern yellow pine. The wood is more variable than longleaf and less so than loblolly. In its southern range it averages about as hard as longleaf while wood grown in the more northern regions or at higher altitudes is moderately soft. The present stand is estimated to be at least 80,000,000,000 board feet.

Loblolly pine is extensively distributed. East of the Mississippi it is a tree of the low pine barrens and their swampy borders and farther back from the coast is found on the tablelands of northern Mississippi, Alabama, Georgia, and South Carolina. West of the Mississippi there are heavily timbered areas of this species in Arkansas, Louisiana, and in Texas as far as the Colorado River. The lumber known as "North Carolina pine" is of this species. The tree grows under diverse conditions which affect its form, size, and the character of its wood. At its best it is an excellent timber tree producing lumber of high grade though usually coarser grained than longleaf and shortleaf. A considerable proportion of the cut is from second growth stands which produce wood of mediocre quality, usually coarse and open grained, knotty, and perishable under exposure. The present supply of this timber may be roughly estimated at 60,000,000,000 board feet.

The woods of the southern pines, though exhibiting wide variation, have much in common, especially so when growing under favorable forest conditions. Longleaf, as a whole, is the hardest and closest grained, loblolly the coarsest and most variable, and shortleaf is intermediate. The yellowish white sapwood, widest in loblolly and narrowest in longleaf, is quite distinct in appearance from the reddish brown heartwood. The annual layers of growth are prominent and show very plainly the two bands corresponding to the early growth of the season and that formed later in the year. The spring wood is composed of thin-walled cells, light in color and deficient in weight and strength. The summer



ILLUSTRATING RULES OF UNITED STATES FOREST SERVICE

wood is made up of very thick-walled cells with consequent hardness, density and strength. These alternating hard and soft bands make the wood less easy to work than even-textured material such as white pine.

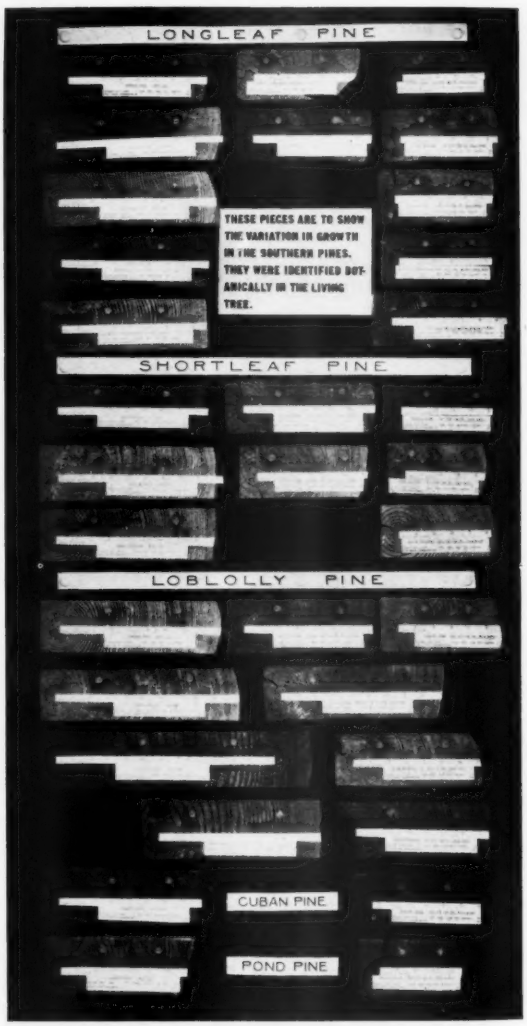
The proportion of spring and summer wood varies not only in different species

LOG POND AND MILL

but also in different parts of a tree and even on the same cross section. It is evident that, in equally sound timber, the larger the relative amount of dense summer wood the harder, heavier and stronger the specimen will be. This factor, consequently, becomes very important in the selection for strength and hardness or for softness and ease of working.

It was formerly customary to grade southern pine timber with reference only to defects. No account was taken of variation in strength due to the inherent qualities of the wood. This was not serious at a time when timber was so plentiful and cheap that only the best was cut, and engineers and builders were able to obtain structural timber of the highest quality. Gradually, however, the whole situation has changed. Timber of intermediate and poor quality comes into the market along with the high class material. The need for better grading rules and methods of inspection has been recognized for many years. To make specifications and plans for structures intelligently the qualities of the materials must be known. Otherwise reasonable prudence demands that working stresses be calculated on the basis of the weakest material that is likely to be obtained under the methods of grading and inspection in use. Manufacturers of yellow pine complain about the lack of uniformity of building codes which prescribe allowable fiber stresses and especially about the very low values permitted by some cities, but only recently have they taken the necessary measures for classifying and standardizing their product. Now that they have done this they are in position to urge revision of codes and practice to conform to the qualities assured by the new classification.

The new grading rules for southern


LONGLEAF PINE
THESE PIECES ARE TO SHOW THE VARIATION IN GROWTH IN THE SOUTHERN PINES. THEY WERE IDENTIFIED BOTANICALLY IN THE LIVING TREE.
SHORTLEAF PINE
LOBLOLLY PINE
CUBAN PINE
POND PINE

VARIATIONS IN GROWTH OF SOUTHERN PINE

SAWING SHORTLEAF PINE LOG

Near Pine Bluff, Jefferson County, Ark.

yellow pine timber are based upon the density of the material, and apply without distinction as to species to longleaf, shortleaf, loblolly, Cuban, and pond pine. Defects are taken into account not only as to size, number and character, but also with particular reference to their location in the stick and probable effect upon its strength. Two classes of timber are designated, namely, dense southern yellow pine and sound southern yellow pine.

In the latter group are included pieces without any ring or summer wood requirement. For a timber to be classified as dense it must show on either end an average of at least six annual rings of growth per inch of radius as measured from the third to the fifth inch, inclusive, from the pith, and the rings measured must contain at least one-third summer wood. Timbers with fewer than six rings to the inch are acceptable provided the proportion of summer wood is not less than 50 per cent. It is also required that the contrast in color between the two portions of the growth ring shall be sharp and the summer wood dark in color, except in pieces exceeding considerably the minimum requirement of summer wood. There are also rules for measuring the rings in small timbers and in those which do not contain the pith.

These rules have been adopted by the American Society for testing materials and by the Southern Pine Association. The association is also urging all manufacturers and dealers to brand their timbers in accord with the new grades and classification as a guarantee of quality to buyers and consumers.

The grading of wood according to its strength and other mechanical properties does not take into consideration the relative resistance of the material to the influences which produce decay. So long as dry timbers are kept dry they will have no chance to rot. On the other hand, if

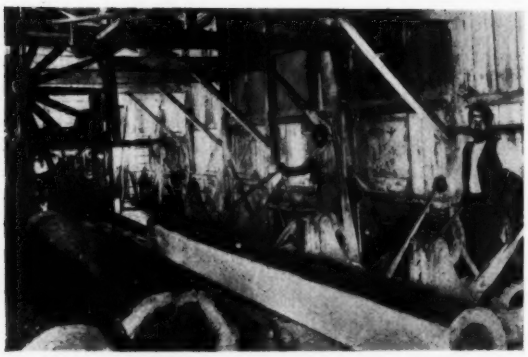
TIMBER LOADING DOCK OF THE LARGEST SAWMILL IN THE WORLD

Has a Daily Capacity of One Million Board Feet

yellow pine is used in contact with the ground or in moist places or where the air is stagnant and humid it becomes of great importance either to select naturally durable material or to treat the other kind properly with antiseptics.

In selecting southern pine for natural durability sapwood should be considered a defect. The common belief, however, that heartwood is stronger than sapwood *per se* is not well founded. Such differences in strength as may exist in sound timber are due to the period of life and the relative vigor of the tree's growth. All heartwood was at one time sapwood

and the transformation involved no increase in wood substance. The change does have a marked effect on the resistance of the wood to decay. This resistance varies, roughly, with the amount of fixed resinous matter in the wood. Thus one piece of heartwood with a minimum of resin will rot quickly upon exposure to adverse conditions while another piece thoroughly impregnated with resin will



SAWING SOUTHERN YELLOW PINE LOGS

resist decay very much longer. This is probably due to the exclusion of water from the wood and not to any poisonous properties of the resin. Some recent experiments by Zeller indicate, also, that in heartwood of the southern pines the factor of density is not only a safe guide as to strength but also as to lasting power. Hence there is no occasion for using perishable timber in contact with the ground or exposed to moisture.

As an object-lesson in the improper selection of timber may be cited the case of a seven-story building in Chicago, where floor timbers, alleged to be "longleaf pine from the South," have rotted so badly after being in place only four years that some of them have had to be replaced and the extent of the damage may prove very serious. That the lumber interests are strongly opposed to such misuse of wood and have no hesitation in openly condemning such practice is shown by the fact that *The American Lumberman* (April 22, 1916) contained a full description of this particular case under the title "Inferior Timber an Argument for Substitutes." From the caption of a cut showing in natural size a cross section of one of the rotten timbers the following is quoted: "A very striking example of the kind of material that ought not to be cut into timbers under any circumstance and that is not fit for use in any place where durability is a consideration." If the new grading rules are effectively applied there need be no occasion for such inferior material being unwittingly employed.

Had the perishable wood been impregnated with suitable preservative the question of durability from decay would have been solved. Mudsills and beams on foundations, basement planking, stringers and other structural parts may be creosoted to secure permanence and stability. Such timbers, if given an empty cell treatment and exposed to the air for some time before being put in place, will have little, if any, objectionable odor. In situations where for any reason the use of creosote is considered undesirable zinc chloride may be successfully employed. With increasing use of second growth pine for structural purposes the matter of preservative treatment will demand much greater attention than is now devoted to it.

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MR. E. F. GUILBERT (OF MESSRS. GUILBERT & BETELLE), *ARCHITECT*

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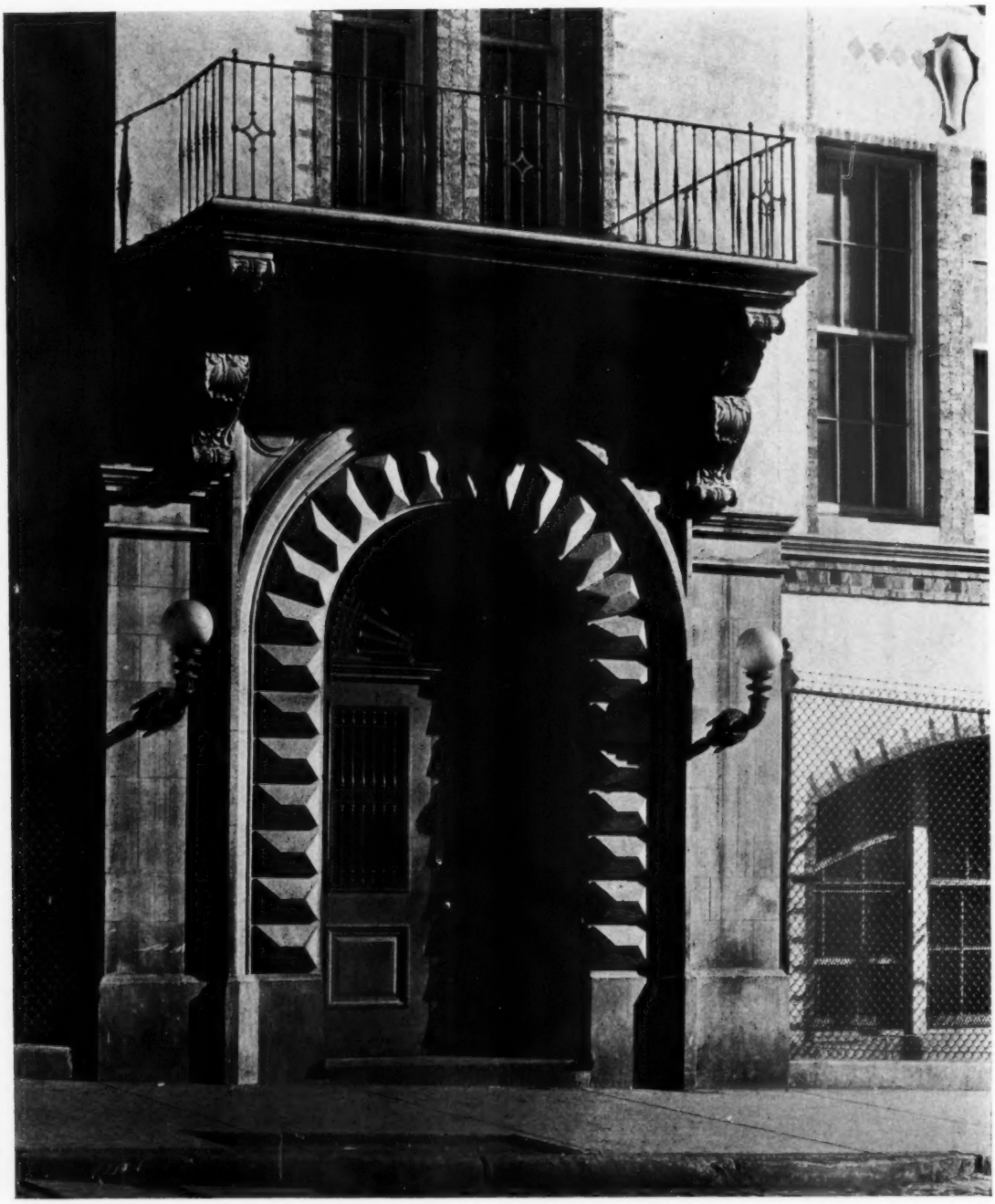

ENTRANCE DETAIL

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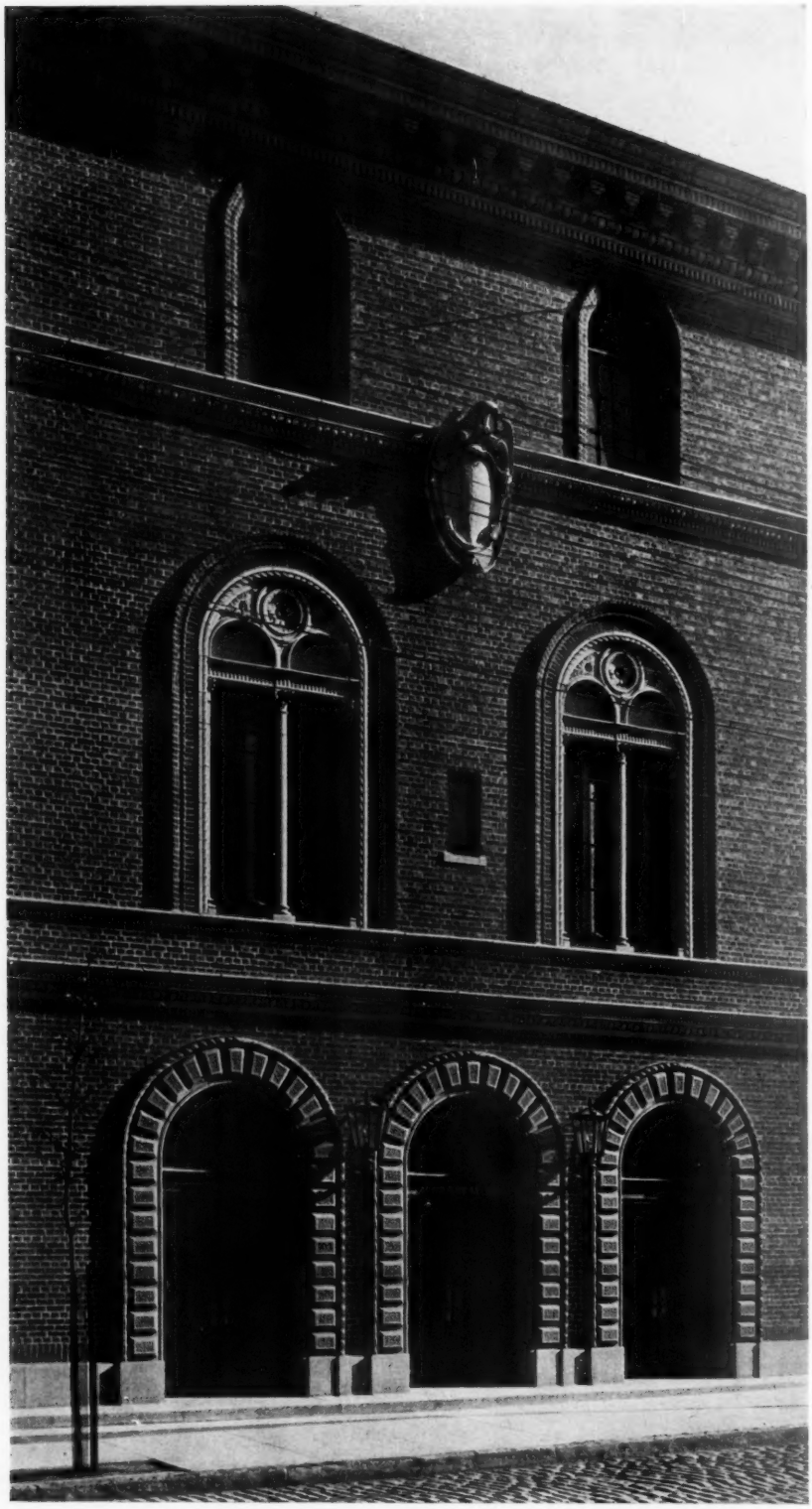

DETAIL

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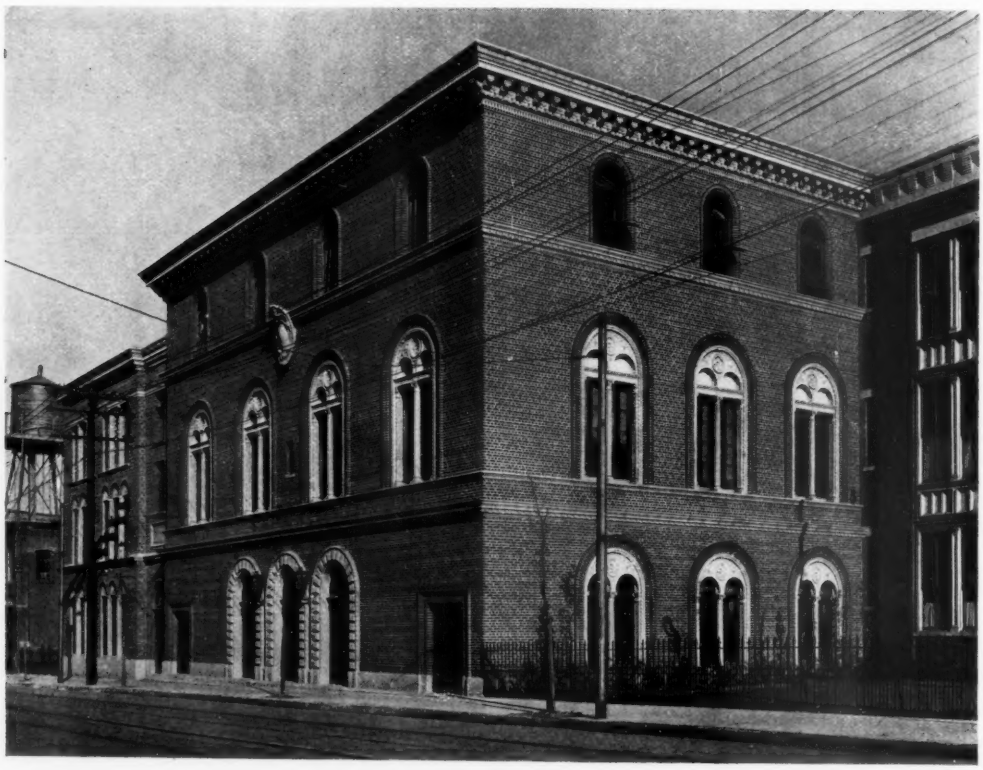

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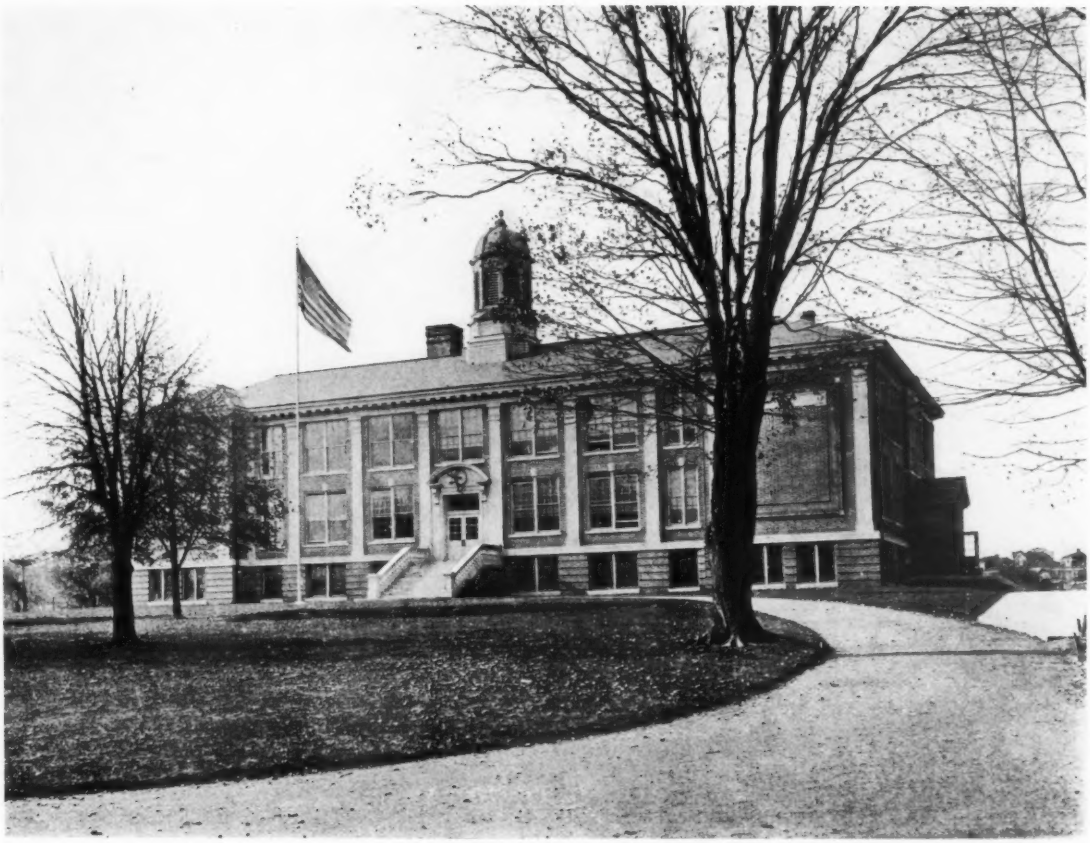

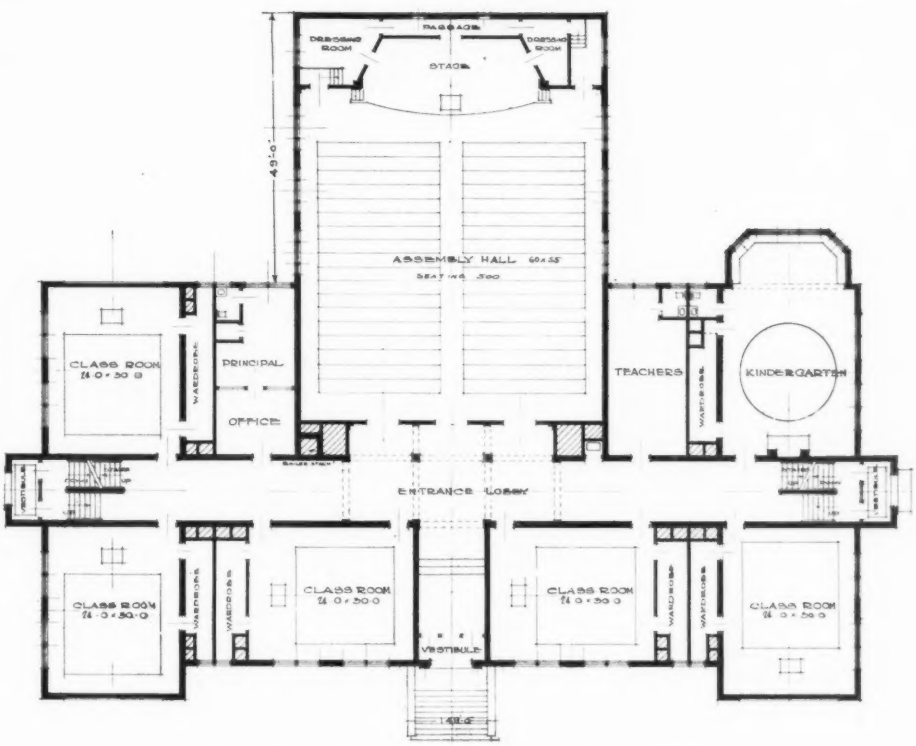

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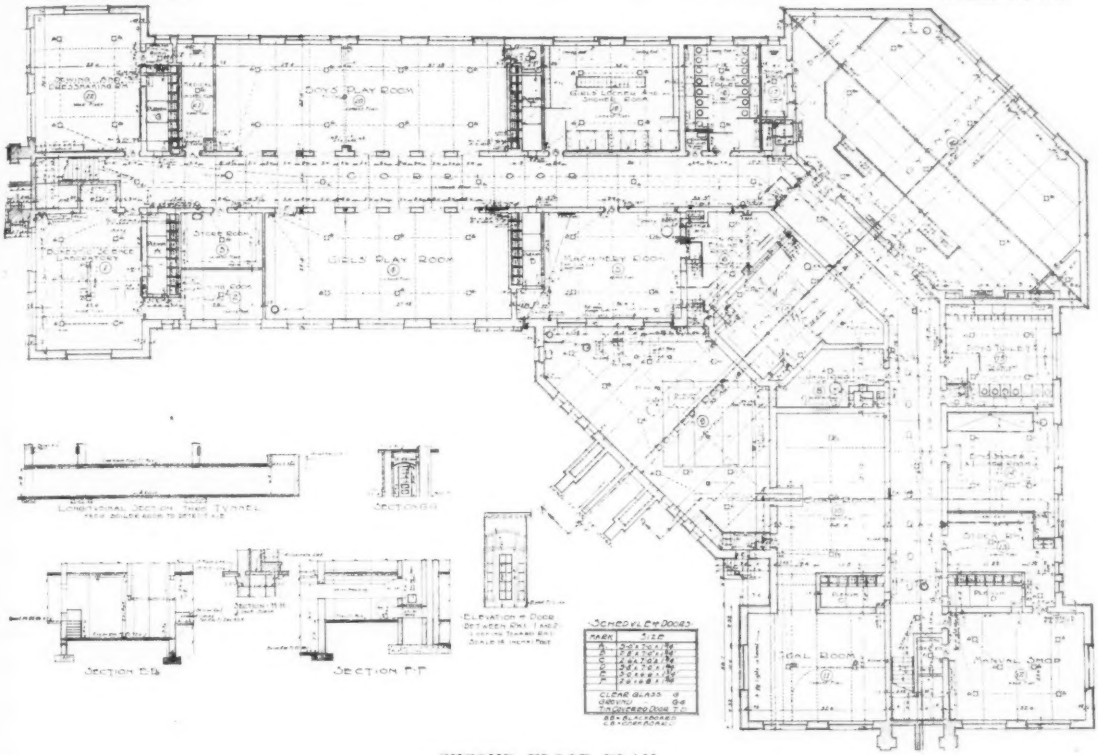
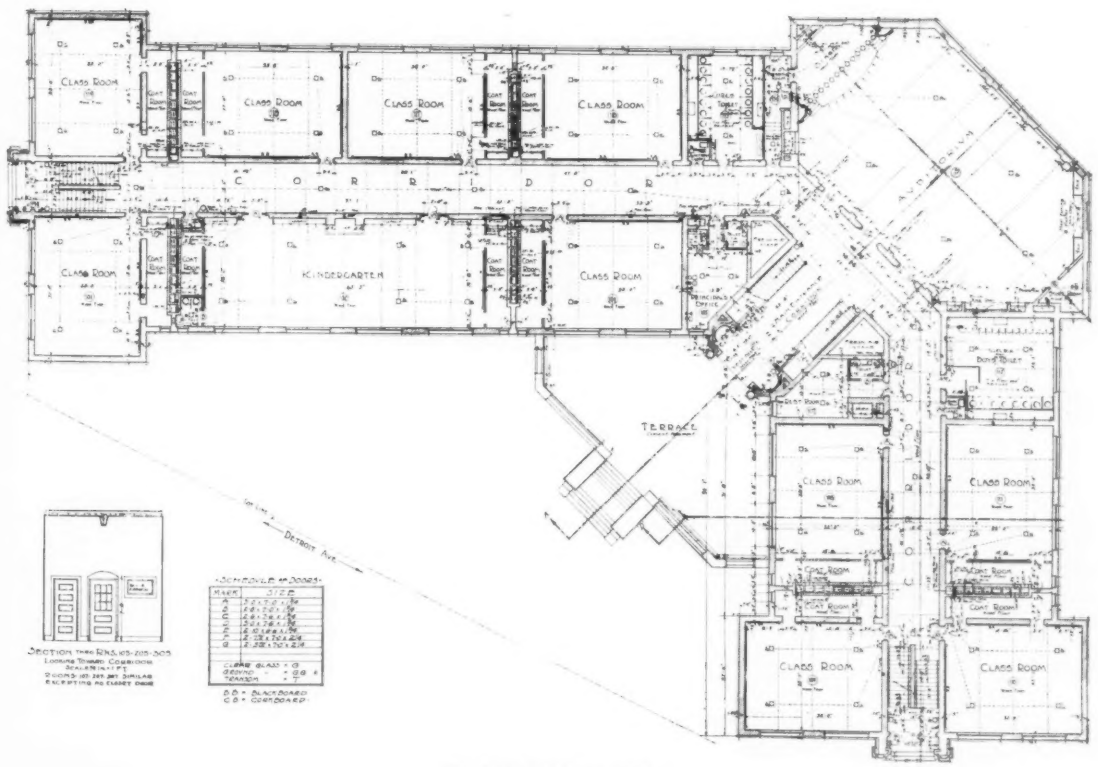


SECOND FLOOR PLAN



FIRST FLOOR PLAN

LINCOLN SCHOOL, TOLEDO, OHIO

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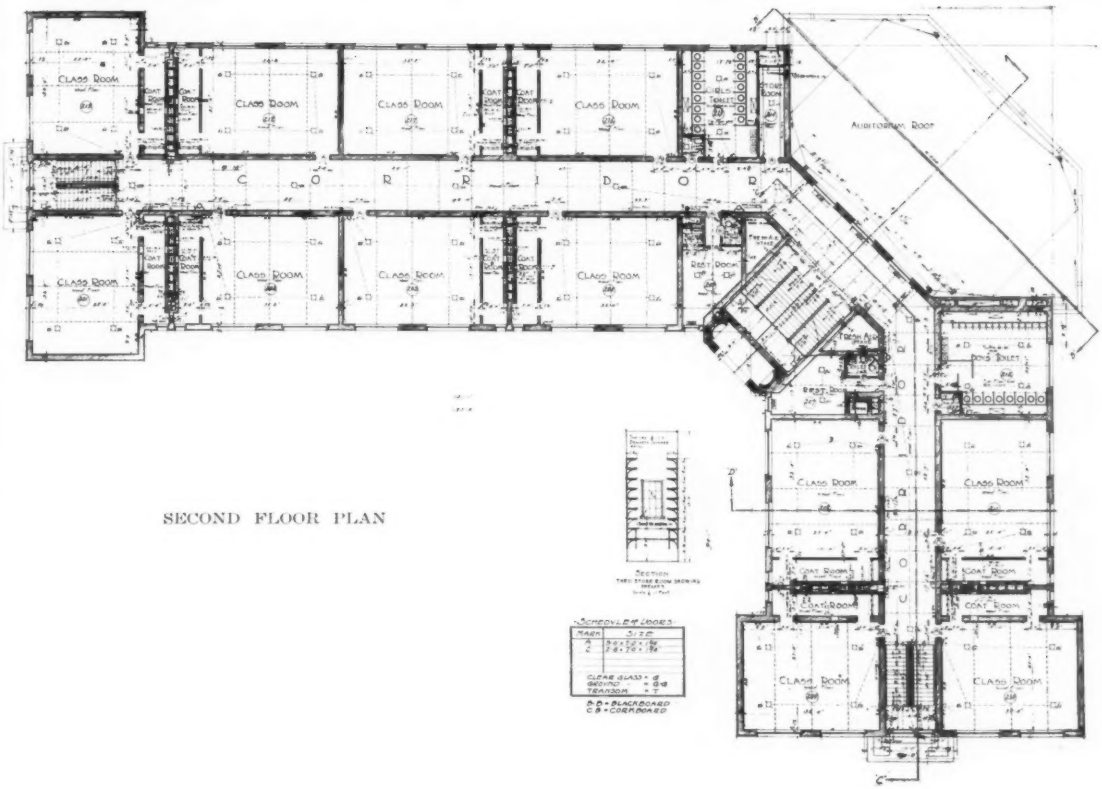

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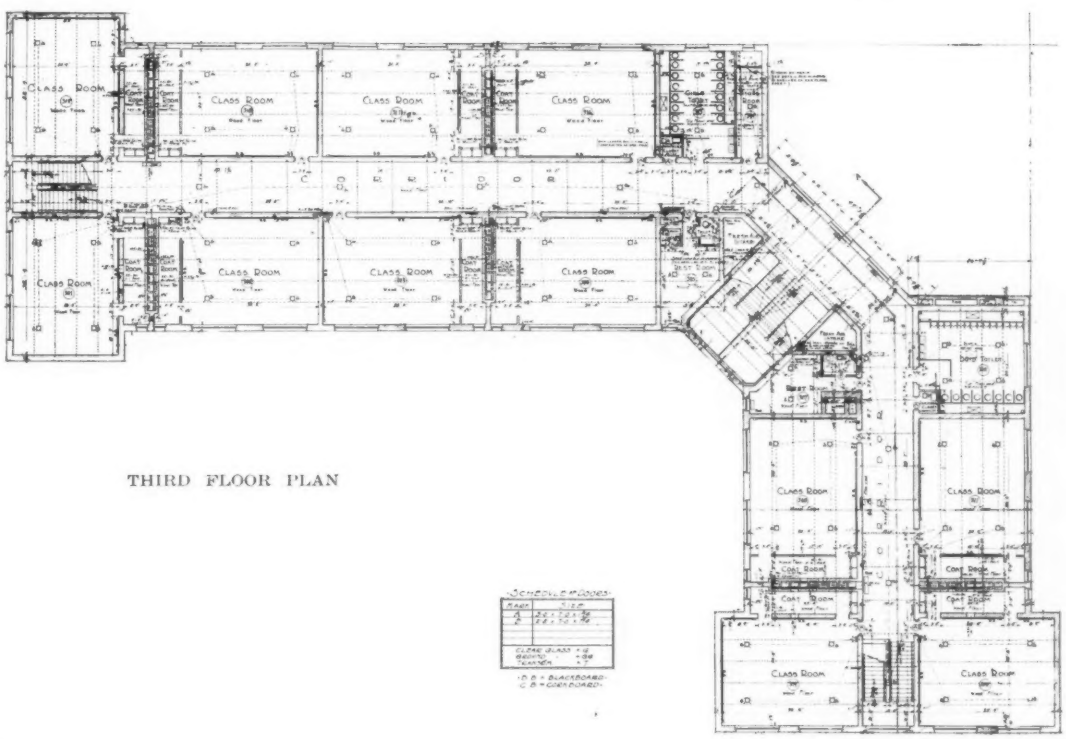

THIRD FLOOR PLAN

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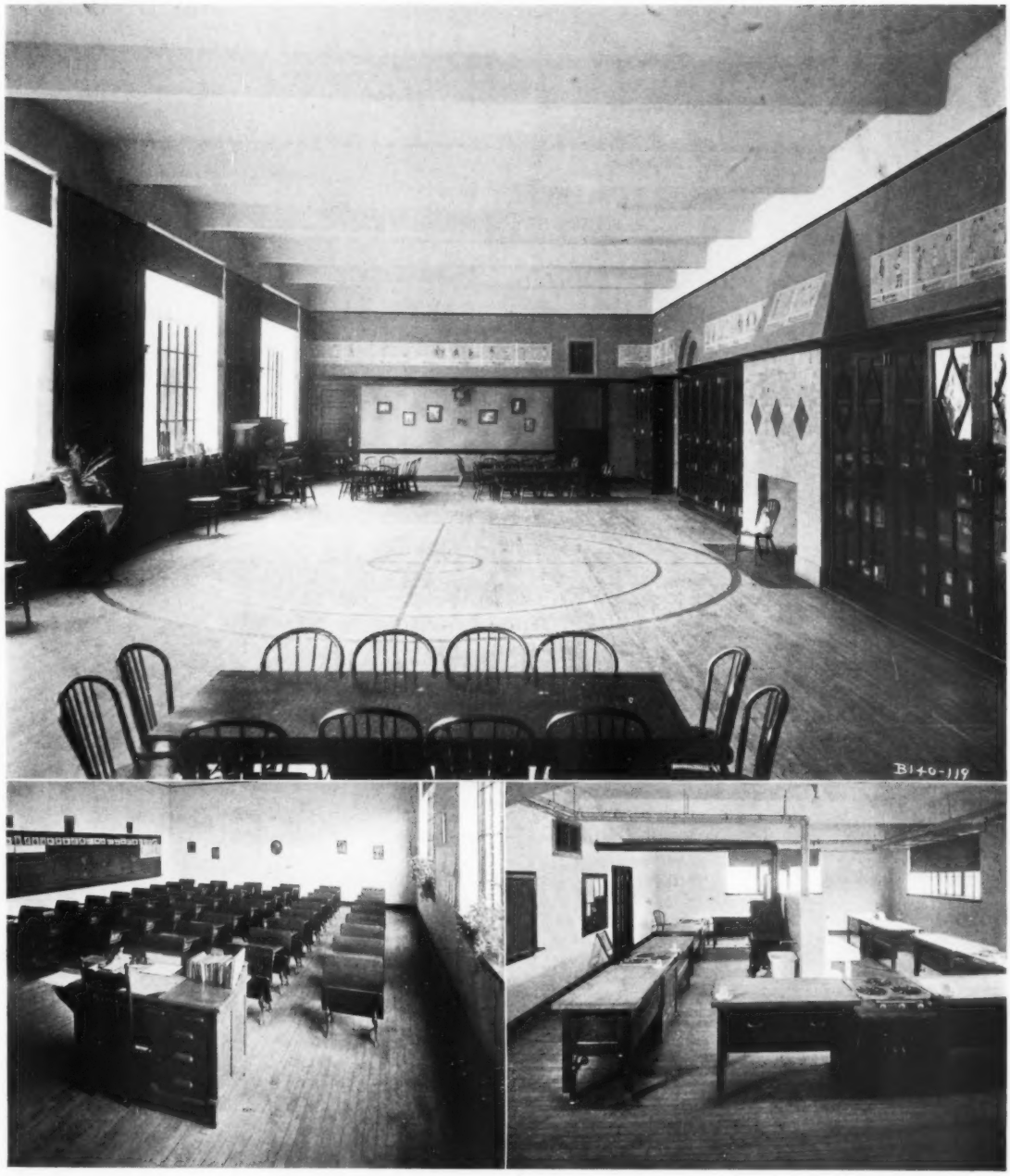

ABOVE, KINDERGARTEN ROOM; BELOW, AT LEFT, A TYPICAL CLASS ROOM; BELOW, AT RIGHT, DOMESTIC SCIENCE ROOM

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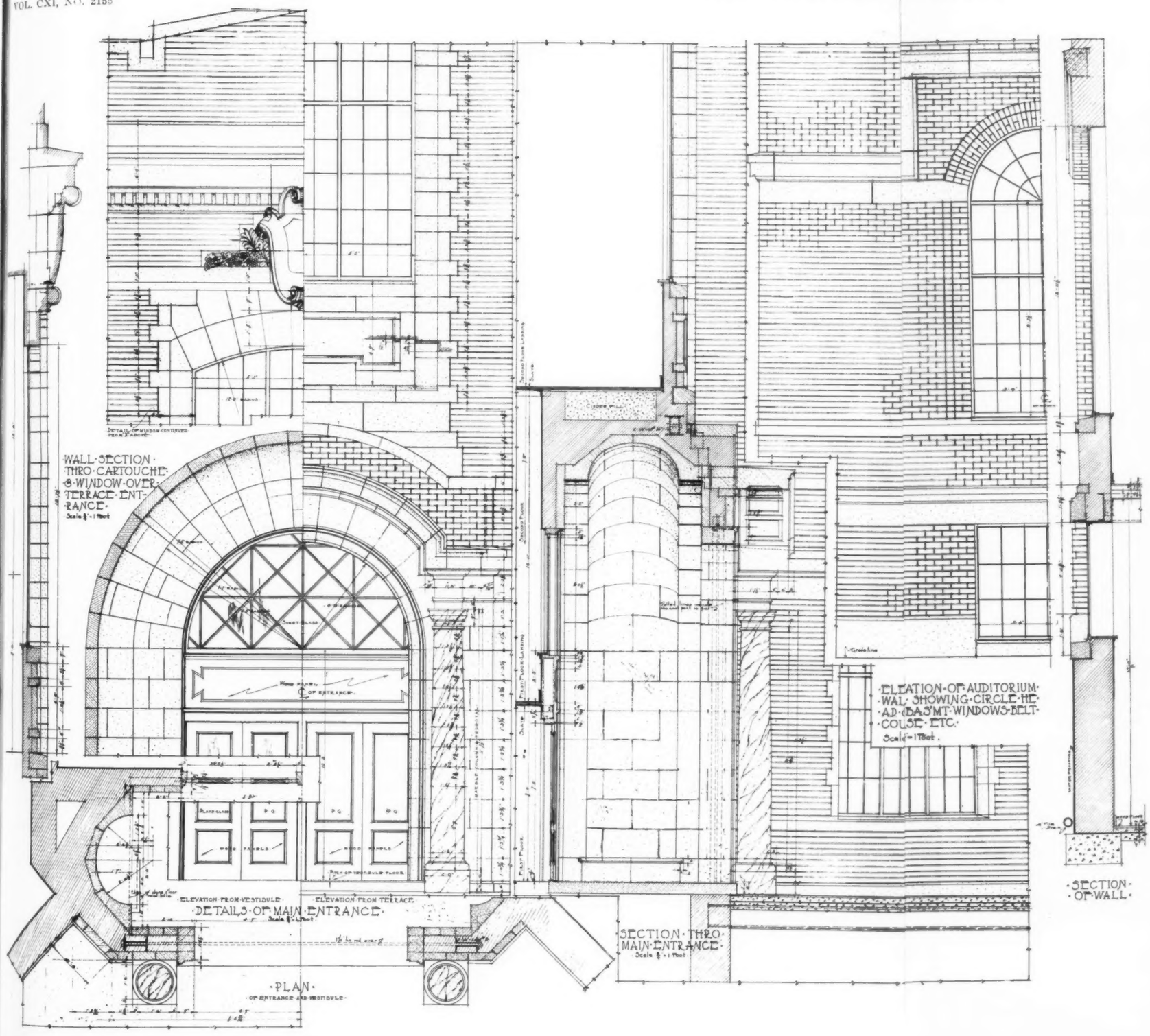
WALL SECTION THRO CARTOUCHE & WINDOW OVER TERRACE ENTRANCE
Scale ½" = 1 Foot
ELEVATION OF AUDITORIUM WALL SHOWING CIRCLE HEAD & BASMT WINDOWS BELT COURSE ETC.
Scale = 1 Foot.
SECTION OF WALL
ELEVATION FROM VESTIBULE
ELEVATION FROM TERRACE
DETAILS OF MAIN ENTRANCE
Scale ½" = 1 Foot
SECTION THRO MAIN ENTRANCE
Scale ½" = 1 Foot
PLAN
OF ENTRANCE AND VESTIBULE

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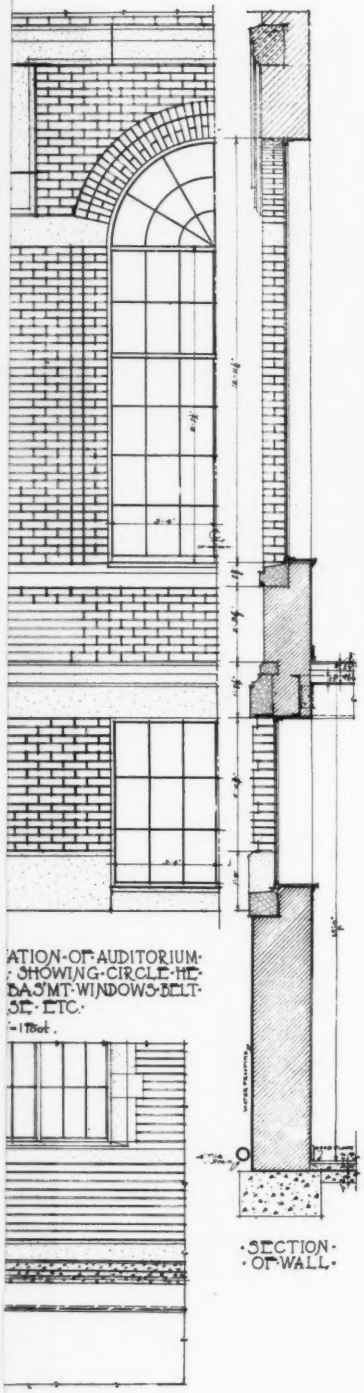

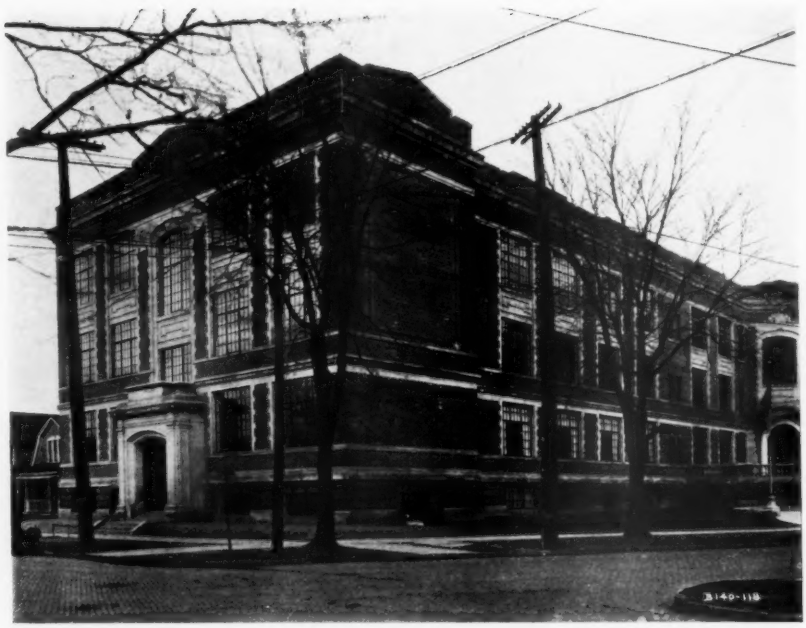

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ST. JOHN'S CHAPEL

ST. JOHN'S Chapel, located on Varick Street, now presents an unusual opportunity to associations and individuals interested in the early architecture of this country to contribute to its preservation. Some two or three years ago the widening of Varick Street endangered this structure, and as a result of widespread protest and the co-operation of Trinity Parish, the owner of the structure, the portico, which projected beyond the line of the street after its widening, was taken over by the city, and the sidewalk arranged to pass under it. The agreement which was then entered into between the city and the owner of the chapel has now expired, and it is understood that since the chapel is useless for church purposes, Trinity Parish is disinclined to longer maintain the structure. In its present condition of dilapidation and decay there seems to be little hope of preserving the building, without the earnest co-operation of public-spirited citizens of means. A substantial sum would be required to restore it and maintain it permanently. The chief engineer of the Board of Estimate, in a recent report, states that little interest appears to have been manifested in the preservation of this building. Such a statement is little less than a reproach against our materialism.

There are so few examples of architecture belonging to our Colonial period still in existence on Manhattan Island that it would seem to be our duty to conserve them by every means possible. Failure to do so will not only result in the artistic impoverishment of our city in a comparatively brief period of time, but it will provide foreign critics, who already question our appreciation of art, with indisputable evidence to support their contentions.

It is probably too much to expect the owners to do anything. In spite of the wealth of the parish and the general impression that education, art and religion are closely related, there has been little disposition shown by this corporation to contribute to art unless the ends of religion are also served. It seems possible, in fact, that it is largely the result of accident that a number of the churches and chapels belonging to this parish constitute the best examples of architecture in the city.

CONTRACTS BETWEEN ARCHITECTS AND THEIR CLIENTS

THE statement has frequently been made that fewer than ten per cent of the agreements under which architects render professional services are expressed in writing. Such a condition, if it exists, is not only one of danger but it seems to indicate lax business methods. Certain it is that cases in which architects have undertaken important work on mere verbal orders are numerous, and not infrequently the resulting misunderstanding has occasioned loss to one party or the other. A number of these in which there appeared serious disagreements have been submitted to the courts for adjudication. A case decided in February of this year by the Supreme Court of Minnesota only illustrates again the unwisdom of trusting to memory or the ability to establish the terms of an agreement without a written document. In this instance the owner admitted that he had employed the architect to make sketches for the structure, but denied that

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he had entered into a definite arrangement with him to make working plans and specifications and to superintend the construction of the building. The architect, on the other hand, claimed that he was regularly employed to render complete architectural services, and entered suit on that basis. In deciding against the architect the court held that when it is understood between the parties that the entire agreement is to be put in writing, the fact that it was never written out and executed is strong presumption of no contract at all; that the writing of the contract is a condition precedent to its completion.

It seems to be a usual practice for the average architect to enter into a mere verbal agreement with an owner to prepare sketches and procure preliminary estimates for a building. At a subsequent interview, perhaps, he will agree to proceed to another stage and prepare working drawings and specifications, and procure actual estimates. At a later time the owner may possibly instruct him to let contracts and supervise the work. When the work is finally completed or even if the operation is halted at any one of the successive stages, it is frequently difficult to establish the basis upon which the work has been done. In fact, it is this loose and haphazard method of agreement between architect and owner that leads to a majority of the misunderstandings and resulting suits at law by which architects endeavor to secure compensation for services rendered. A definite understanding and written agreement before any work is undertaken, with supplemental modifications, additions or revisions mutually agreed upon as occasion arises, would prevent these disputes or render their determination comparatively simple and inexpensive. It is to be hoped that architects will soon come to a realization of this fact in the interest not only of their own incomes, but as a measure that will result in better feeling on the part of the public, and a higher regard in general for the architect's business ability.

A TEST OF THE ZONING LAW

FROM present indications it appears that the anxiously awaited test to determine the constitutionality of New York's new zoning law is not far distant, and that it will be made under almost ideal conditions, for both parties to the controversy are possessed of unlimited means. To be specific, it is reported that Lord Astor, an ex-American of great wealth, is appealing to the Board of Estimate against the restrictions that the law places upon some of his property. Arrayed against him are owners of property in the Murray Hill section of almost equal wealth who are looking upon the law as a new and powerful ally in the fight they have been waging for years to preserve the character of this portion of the city. Presumably Lord Astor's petition will be denied and it is stated as his intention in such an event to take the case to the courts on the ground that the law is confiscatory. Under these conditions it seems reasonable to suppose that the test will be decisive. Either the old principle of private rights will be upheld or else in establishing the constitutionality of the law the newer theory that private rights must yield to the public welfare will be affirmed in a manner that will prevent future controversies based on similar grounds. The courts in a number of states have already sustained restrictions of private rights such as are involved in our zoning law, holding, in effect, that it is a proper use of the health powers reserved to every state and city to be used in any manner believed to be necessary for the protection of the public health.

When the New York zoning law was in course of preparation, the greatest possible attention was given to its legality. Where there was any question in the minds of the framers regarding the lawfulness of a desired provision it was omitted rather than permit the question to stand. Under these circumstances it seems probable that there need be little apprehension regarding the outcome of the test to which the law seems about to be subjected.

Current Architectural Press

THE February issue of *The Architectural Review* is mainly devoted to illustration of Golf Club Houses of recent construction. The descriptive article is by Mr. George C. Nimmons.

There can be no doubt, as Mr. Nimmons states, that the increasing popularity of the game of golf has brought to architects and landscape gardeners most attractive and pleasant problems.

The examples selected to illustrate Mr. Nimmons' article are an interesting lot and present large suggestive value. Other illustrations in this issue are of a house at Overbrook, Pa., by Thomas H. Atherton, Jr., and the entrance detail of a house in Atlantic City, N. J., designed by Ford, Butler & Oliver.

Mr. W. W. Kent continues his series on early architects; the present article treating of Baldassare Peruzzi. We are informed that Peruzzi was architect, painter and engineer, a combination not so rare in the sixteenth century, when the designer of an important structure super-

(*FROM ARCHITECTURE*)

HOUSE OF ARTHUR CURTISS JAMES, ESQ., NEW YORK

MESSRS. ALLEN & COLLENS, *ARCHITECTS*

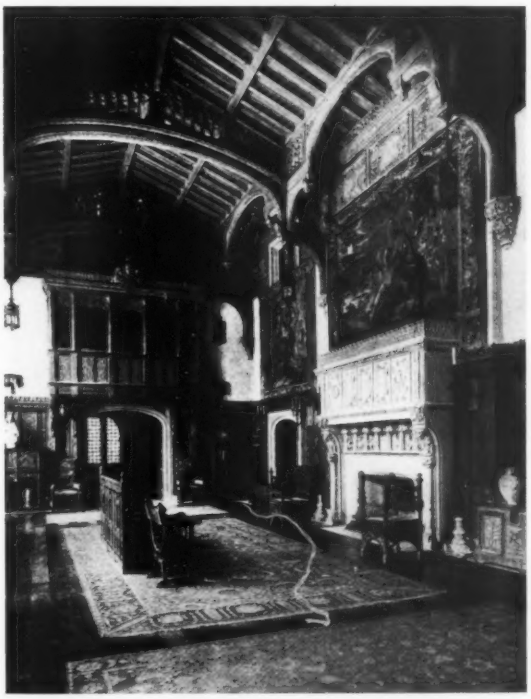
intended its every detail from foundation to dome.

The illustrations accompanying this article give added interest to the text.

* * *

A number of well-designed country houses, a meeting house and a church, all by Heacock & Hokanson, are illustrated in *The Western Architect* for February. Other features are: a town house in San Francisco, by Sylvain Schnaittacher; a stucco house in Cincinnati, by C. G. Burroughs; a store and office building in

(*FROM ARCHITECTURE*)



GREAT HALL, RESIDENCE, ARTHUR CURTISS JAMES, NEW YORK

MESSRS. ALLEN & COLLENS, *ARCHITECTS*

Winetka, Ill., by Chatten & Hamilton, and an office building in Chicago, by Mundie & Jensen. The text consists of a reprint of Mr. R. Clipston Sturgis' admirable paper, delivered before the recent convention of the Institute in Minneapolis, as supplementary to the report of the Committee on Education.

* * *

The house of Arthur Curtiss James, on Park Avenue, New York, Messrs. Allen & Collens, architects, is the principal subject illustrated in *Architecture* for March.

This constitutes an important addition to New York's stately houses. Particularly does the Great Hall suggest the dig-

nified Elizabethan mansion. The treatment throughout has been handled in a most satisfactory way.

Houses as costly as this one necessarily lose something of the quiet and retiring features of domesticity. They are, in a sense, show places. Yet the architects have been able to combine, with the large rooms and high ceilings, a certain domestic atmosphere that is often lacking in pretentious houses.

(FROM THE ARCHITECTURAL RECORD)

READER'S PLATFORM AND ORGAN FRONT—FIRST CHURCH OF CHRIST SCIENTIST, ROCHESTER, N. Y.
GORDON & MADDEN AND WILLIAM G. KAELBER, *ARCHITECTS*

Mr. Egerton Swartwout's series on the Classic Orders of Architecture is, in this issue, advanced to its sixth installment, treating of the Corinthian Order.

* * *

The March issue of *The International Studio* is the twentieth anniversary number. The leading article, "Retrospect and Impression," is contributed by Eliot Daingerfield, artist painter. It is an intelligent survey of the field of art in this country, and well worth reading. Frank W. Purdy contributes "Some Impressions of American Sculpture," and, in his summing up shares with Mr. Daingerfield in an optimistic and hopeful view of the future of art.

(FROM THE ARCHITECTURAL RECORD)

MAIN ENTRANCE—FIRST CHURCH OF CHRIST SCIENTIST, ROCHESTER, N. Y.
GORDON & MADDEN AND WILLIAM G. KAELBER, *ARCHITECTS*

Frank Alvah Parsons also contributes to this series of reviews of various fields of art during the past two decades, and he also is disposed to hopefully regard the progress being made towards a realization of our decorative ideals.

It is good to learn from men so well qualified to speak with authority on their various topics that we are slowly, but none the less surely, mounting to higher

(FROM THE ARCHITECTURAL RECORD)

SUNDAY SCHOOL ROOM—FIRST CHURCH OF CHRIST SCIENTIST, ROCHESTER, N. Y.
GORDON & MADDEN AND WILLIAM G. KAELBER, *ARCHITECTS*

planes. The usual reviews of exhibitions and the illustration of recent important work of painters, sculptors and craftsmen are presented.

(FROM THE ARCHITECTURAL REVIEW)

DETAIL OF ENTRANCE—HOUSE OF W. L. MAC COY, ESQ., OVERBROOK, PA.
THOMAS H. ATHERTON, JR., *ARCHITECT*

In *Good Furniture* for March there are continued the various serial articles, all, as usual, well illustrated. The numerous

(FROM THE WESTERN ARCHITECT)

GERMANTOWN MEETING HOUSE, GERMANTOWN, PA.
HEACOCK & HOKANSON, *ARCHITECTS*

interiors shown in this issue are witnesses to the improvement that has taken place in the furnishing and decoration of the American home during recent years.

* * *

Some unusual features in both design and plan were incorporated by the architects, Gordon & Madden and William G. Kaelber, in the First Church of Christ Scientist, Rochester, New York, illustrated in the March issue of *The Architectural Record*. These have been, in a certain sense, described by Mr. I. T. Frary, in an accompanying article.

A very pronounced effect of color has been secured, we learn, and the result

(FROM THE ARCHITECTURAL REVIEW)

DETAIL OF ENTRANCE—HOUSE AT ATLANTIC CITY, N. J.
FORD, BUTLER & OLIVER, *ARCHITECTS*

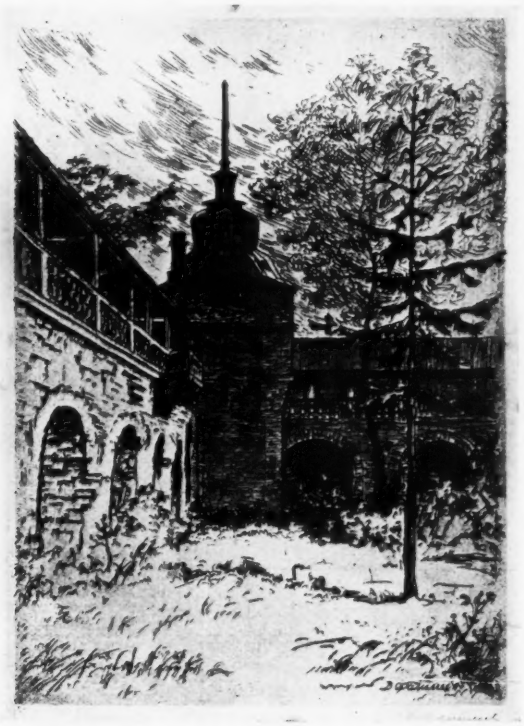
would seem to be satisfactory. This feature is, of course, not shown in the black and white reproductions and its description is therefore justified. The somewhat studied reference to the features of design and plan, while doubtless interest-

ing and instructive to the lay reader are, in view of the very complete illustration, of small value to an architect.

The series on "English Architectural Decoration," by Alfred E. Bullock, which reaches its second installment in this issue, treats of the seventeenth century period. This series has a certain practical value, and should encourage a development of better craftsmanship in this country.

A number of recent hospital buildings are illustrated. They are the work of

(*FROM THE INTERNATIONAL STUDIO*)



"CORNER OF A MONASTERY AT YAROSLAVL"
BY VADIM FALILEIEV

Kendall Taylor & Co. and show a full appreciation of the requirements. In the Portfolio of Current Architecture, there are illustrations of gardens and of a number of suburban houses. The details of these will be found in our index to the current architectural press.

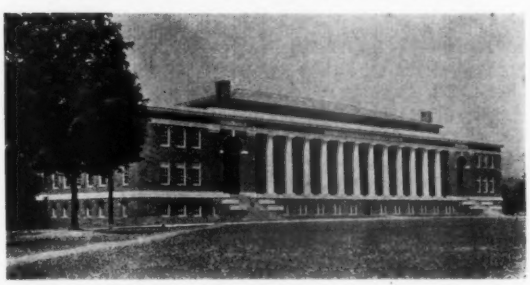
* * *

The leading article in *The Architectural Forum* for February is a book review by H. D. Upman. The subject is "The Work in Architecture of Robert and James Adams," published in London last spring. The illustrations are taken from the book. William A. King discusses at length certain legal questions and deci-

(*FROM THE ARCHITECTURAL FORUM*)

HOUSE OF ALBERT RATHBONE, ESQ., 45 EAST 78TH STREET, NEW YORK, N. Y.
A. C. JACKSON, *ARCHITECT*

(*FROM THE ARCHITECTURAL FORUM*)



DOREMUS MEMORIAL GYMNASIUM, WASHINGTON AND LEE UNIVERSITY, LEXINGTON, VA.
FLOURNOY & FLOURNOY, *ARCHITECTS*

sions affecting architectural practice, and Harold V. Walsh, instructor in the Architectural School of Columbia University writes of "Ways to Gain Practical Knowledge in Architecture."

In spite of the recent change of name, the various buildings illustrated in this issue of *The Architectural Forum* are constructed principally of clay products.

Perhaps the most interesting subject illustrated is a gymnasium at Worcester (Mass.) Academy by Peabody & Stearns. There is also shown a gymnasium at Washington and Lee University, designed by Flournoy & Flournoy.

Other subjects are a Christian Science Church at Roxbury, Mass., designed by Shepley, Rutan & Coolidge; an office building of an unusual but commendable type by Bertram G. Goodhue; a fraternity house at Amherst, Mass., by Putnam & Cox, and suburban houses by Walker & Weeks and Howard Shaw.

PERSONALS

Mr. Ernest O. Brostrom, architect, Kansas City, Mo., announces that he has opened offices for the practice of architecture in the Reliance Building, that city.

It is announced by Mr. G. Wesley Stickle that he has opened offices in the Palace Hardware Building, Erie, Pa., for the practice of architecture and would like to receive manufacturers' catalogs and samples.

Mortimer E. Freehof and David L. Solomon have opened an office at 620 Carlton Avenue, Brooklyn, for the practice of architecture, under the firm name of Freehof & Solomon, and invite catalogs, samples and general literature.

Mr. Thomas C. Young of Eames & Young, architects of St. Louis, Mo., and Mr. Alfred H. Granger, formerly of Frost & Granger, architects of Chicago, Ill., announce that after April 1, 1917, they will be associated for the practice of architecture. They will be known as Eames & Young, Wright Building, St. Louis, Mo., and Granger & Young, 332 South Michigan Avenue, Chicago, Ill.

It is announced that Messrs. Charles M. Scripture and Grover M. Pratt, architects, will open an office at 405 Ohio Building, Akron, Ohio, as associate architects, and will be pleased to receive manufacturers' samples and catalogs.

Mr. Philip S. Avery, architect, announces the removal of his offices from 120 Tremont Street to the Unity Building, 185 Devonshire Street, Boston, Mass., and would be glad to receive manufacturers' samples and catalogs.

Texas State Architects' Association

It is reported that W. J. Smith, of Galveston, Texas, has been elected as fifth vice-president of the Texas State Architects' Association, to succeed the late Harry E. Davis. Mr. Smith was appointed to fill this office temporarily on the death of Mr. Davis recently, and the appointment has now been made permanent.

Architects of Galveston are said to have also organized a local association, with Walter S. Murdoch as president and W. J. Smith as secretary.

A School Building Standardization Committee

John H. Donovan, of Oakland, Cal., William B. Ittner of St. Louis, and C. B. J. Snyder of New York, comprise the trio of architects appointed by the department of school administration of the National Educational Association, to act as a committee on the standardization of planning and construction of school buildings. It will be the duty of this committee to secure all available data and to tabulate and report the results of their labors.

Virginia Chapter A. I. A.

The following officers for the ensuing year were elected at the recent annual meeting of Virginia Chapter, A. I. A.: William C. Noland, president; Eugene Bradbury, vice-president, and W. N. Mitchell, secretary-treasurer.

XUM

INDUSTRIAL INFORMATION

Filing Cabinets

The Shaw-Walker Company, Muskegon, Mich., has issued a catalog and price list illustrating in detail the steel and wood filing cabinets of which this company is the manufacturer.

Particular emphasis is laid upon the strength of these cabinets which, it is claimed, are "built like a skyscraper." The steel cabinets are constructed without bolts, screws, rods or rivets, the various parts being welded together with an electric welding machine. It is stated that all drawers will run silently and smoothly for a hundred years without repair or attention. This prophecy is based on the long life and exceptional character of the slide which is used in the Shaw-Walker cabinets. The carriage runs on ten case-hardened roller bearings that have beveled edges.

All types and sizes of filing devices are manufactured, together with various supplies used in them.

Copy of the catalog will be sent to architects upon request.

O'Brien Products

The O'Brien Varnish Company, South Bend, Ind., has recently issued a very attractive folder in which are bound a number of catalogs, pamphlets and other forms of trade literature designed to place before the architect in the most usable form material that will be of interest and value to him in the practice of his profession. One of the folders is published under the caption, "Why Architects Specify O'Brien Liquid Velvet." In this brochure are illustrated a number of interiors of buildings where this product has been used, and the color schemes, tone effects and general considerations of interest in selecting varnishes are discussed. The story of Liquid Velvet is printed, from which it develops that the specifications under which it was produced were: An easily applied wall covering that would be a veritable enamel coating for walls and ceilings—one which could be produced in a wide range of tones for any decorative scheme, and which would be washable while possessing unusual durability and versatility. It is claimed that this product meets this broad and exacting specification.

Another product — O'Brien Master Varnish—is described as the triumph of 40 years of varnish making. It is said to be unaffected by water; that it can be immersed for days without marring its appearance in any way, and that even boiling water can be poured over it without turning it white.

A number of letters from users of O'Brien Products are reproduced, and give evidence of the satisfaction which has attended their adoption. A list of public buildings and hospitals in which these materials have been used is also appended.

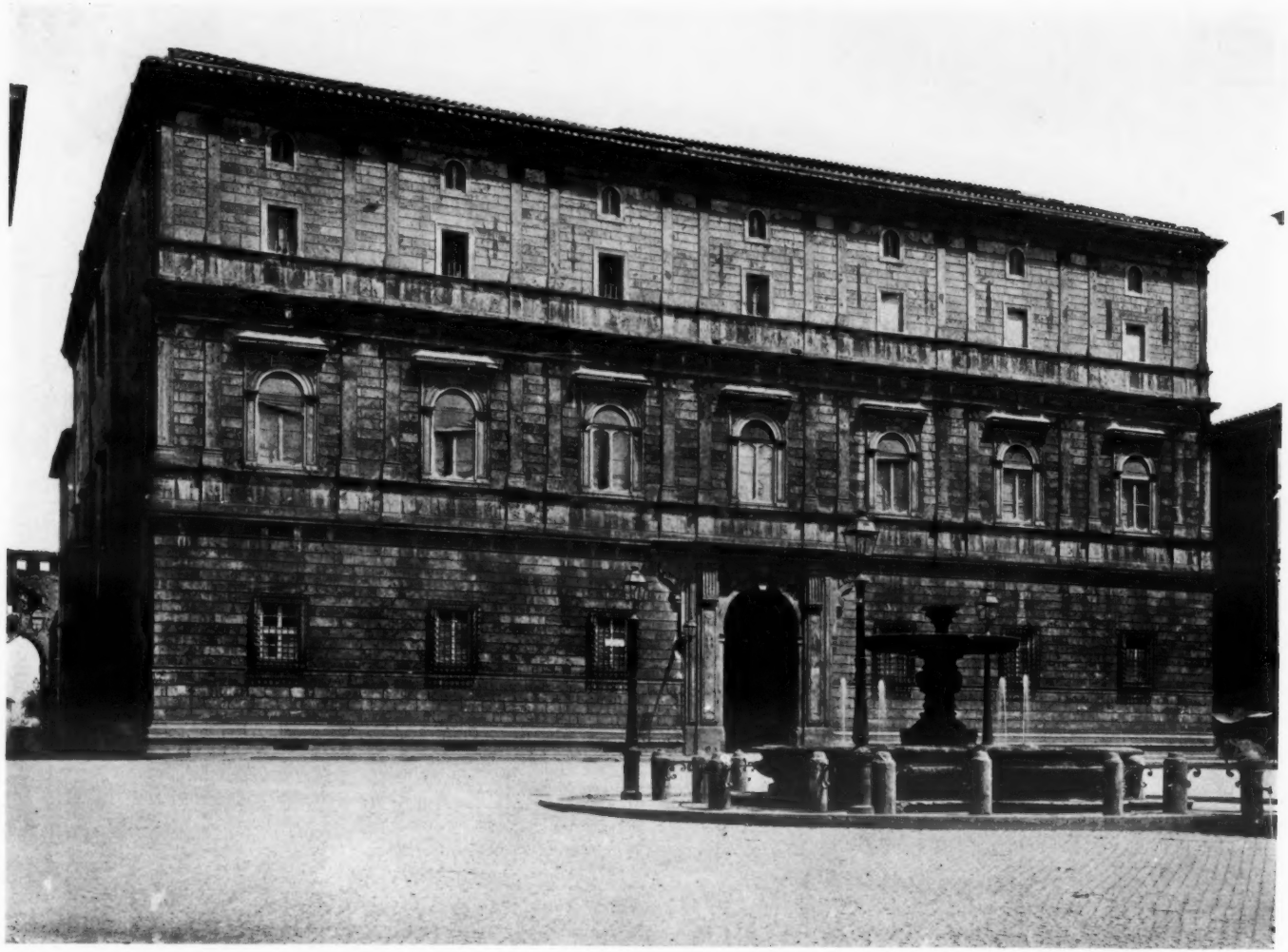
Copies of this folder will be furnished to architects upon application.

Hoffman Valves

The Hoffman Specialty Co., 130 North Fifth Avenue, Chicago, Ill., has issued a catalog describing Hoffman Venting Devices. These include a siphon air valve, a vacuum valve, an air line valve, a quick vent air valve, a quick vent "float" air valve, a quick vent "float" air and vacuum valve, and a return line valve.

It is stated that the designer and patentee of these valves has been actively identified with the heating business in all its phases for the past thirty years, and for fifteen years has been devoting his entire thought and energies toward the development and production of venting devices for low pressure steam heating systems. He has realized the demand for dependable venting devices which would be non-adjustable and still automatic in the performance of their various functions, and it has been with the idea of meeting this demand that the valves illustrated were produced. The duty of each valve is fully described in the catalog, as well as the mechanism of the valve itself.

Copy of catalog will be furnished upon request.



PALAZZO TORLONIA, ROME